

A NEW SPECIES OF RANUNCULACEAE FROM GANSU (CHINA)

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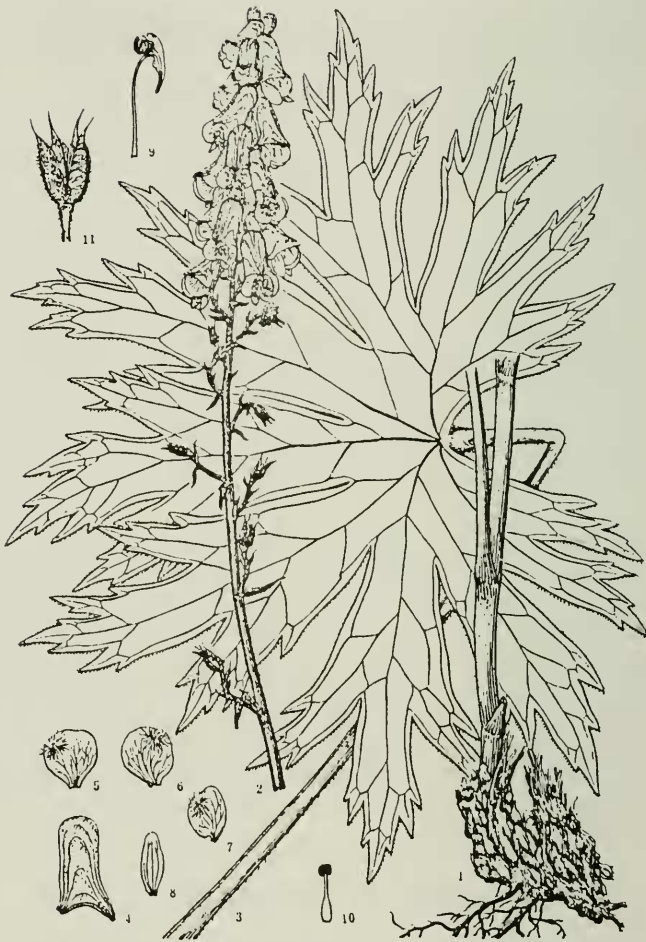
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ABSTRACT

A new species of *Aconitum* is described from central Gansu which differs significantly from other taxa in its inflorescence having 3-5 glabrous carpels. Other species of interest include *Aconitum tatsienense* Finet & Gagnepain and *A. sungpanense* Hand.-Mazz. var. *leucanthum* (Reichb.) W.T. Wang which also have inflorescences with 3-5 carpels. Other species of *Aconitum* from western China include *A. alboviolaceum* Kom. and *A. apetalum* (Huth) B. Fedtsch. which usually only have three carpels, while in *A. stylosum* Stapf and *A. yachiangense* W.T. Wang, the inflorescences usually have five carpels. The new species belongs in the series *Stylosa* and section *Aconitum* of the genus *Aconitum* and is most closely related to *A. yachiangense*.

KEY WORDS: Ranunculaceae, China, *Aconitum*

Aconitum jinchengense L.C. Wang et J. Silba, *species nova*. TYPE: CHINA. Gansu: Lanzhou, Xiguoyuan xiang alt. 2450 m, gully, VII. 6. 1990. leg. L.C. Wang no. 90020 (HOLOTYPE: in Herb. Dept. Biol. Northwest Norm. Univ.)



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 Aconitum jinchengense Wang, Dun & Silba

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Figure 1. Illustration of *Aconitum jinchengense* L. Wang & J. Silba from Wang 90020 (Holotype). 1-Tuber; 2-inflorescence; 3-leaf; 4-8-lower and upper sepals; 9-10-anthers; 11-fruit. Figure by Hian-lu Bai (NWN Univ.).

Affine *A. yachiangense* W.T. Wang, a quo tuberibus 2-3; foliis reniformibus vel rotundato-reniformibus; cassibus cylindraxis, sepalis inferioribus inaequalibus, sepalis lateralibus et maioribus sepalis inferioribus intus barbatis; carpellis 3-5, glabris differt.

Tubera 2-3, cylindrata, circ. 4-10 cm longa, ad 1.5 cm diam. Caules erecti ad 1.2 m alti, 5-15 mm diam., pilosi, fistulosi, 4-6 foliati. Folia radicalia et caulina inferiora longe petiolata; petioli usque ad 70 cm longi, lamina ambitu reniformis vel orbiculato-reniformis, ad 17 cm longam et circ. 30 cm latam, profunde palmatim 3-partita usque ad $\frac{1}{5}$ partes longitudinum laminarum, medio partitione late rhomboideocuneata, lateralibus obliquo-flabelliformibus, 3-fidis, lobis apice acuminatis; margine lobis parvis paucis vel dense acutis triangularibus irregularibus; superficies glabra, infra nervos pilosos non nisi; folia caulina similia radicalia, sed supera minora, petiolata brevia, lobis apicibus acuminatis. Racemi multiflori, ad 60 cm longi, circ. 45 flori, inferioramiferi; bracteae inferiores foliaceae, sed superiores lineares; rachis cum pedicellis patente alba puberula; pedicelli 3-30 mm longi; supra medium bibracteolatis; bracteolae lineares 3-9 mm longae, pilis papatulis brevibus. Sepala alba, extus puberula; cassis cylindracea, 8-20 mm longa, circ. 5 mm crassa; sepala lateralalia subrotundata, circ. 8 mm lata, intus alba barbata; sepala inferiora inaequalia, magnisepala late ovalis-rotundata circ. 6 mm longa et 5 mm lata, intus alba barbata, microsepala angustiovata circ. 6 mm longa et 3 mm lata, intus glabra. Petalis glabris, circ. 15 mm longis, calcaribus circ. 4 mm longis, circinatis, lobis labiatis circ. 4 mm longis, 2-lobatis, unguibus circ. 10 mm longis. Stamina circ. 28, glabra, circ. 4 mm longa, filamentum a medio abrupte dilatatis, margo integer. Carpella 3-5, glabra. Folliculi circ. 1.2 cm longi, breviter pilosi, in juvenalibus densioribus. Semen obovatum, triquetrum, circ. 4 mm longum dense transversum angustialatum. Fl. et Fr. 7-8.

In the spermatophyte flora of Gansu, this province can be classified into five geographic regions. Namely, the Hosi Kalidor to the upper north; the North Qilian mountain region to the lower north; the Gannan region to the southwest which includes the Yellow River and Taohe River region; the loess plateau region which includes Lanzhou; and lastly, the south Gansu region which includes the west Qinling-Bashan mountain region (Wang & Ding 1990).

The relationship between the flora distributed in Gansu and Shanxi appears to have many related taxa. Interestingly though, the flora distributed in Gansu and Sichuan appear to have even closer relationships between species. In the two regions, namely the Gansu-Shanxi flora and the Gansu-Sichuan flora, the similarity coefficient of genera appears to be approximately 76.8% and 74.3%

respectively (Kung 1962; Wu 1979).

The new, previously undetected species *Aconitum jinchengense* is native to central Gansu at moderate elevations. This species is related to *A. yachiangense* W.T. Wang, though it differs in having 2-3 tubers; the leaves are reniform or orbicular-reniform; the corolla cylindrical, the lower sepals reduced, the lateral sepals larger than the lower sepals and provided with beard like cilia or pubescence; the carpels being 3-5 in number and are glabrous.

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